SEQUENCE LISTING

	3	(I) GENE	RAL INFORMATION:
		(i)	APPLICANTS: Rashtchian, Ayoub Solus, Joseph
	10	(ii)	TITLE OF INVENTION: Stable Compositions for Nucleic Acid Sequencing and Amplification
		(iii)	NUMBER OF SEQUENCES: 2
	15	(iv)	CORRESPONDENCE ADDRESS: (A) ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. (B) STREET: 1100 New York Avenue, N.W., Suite 600 (C) CITY: Washington
<u>.</u>			(D) STATE: DC
: :	20		(E) COUNTRY: USA
			(F) ZIP: 20005
		(v)	COMPUTER READABLE FORM:
		(,,	(A) MEDIUM TYPE: Floppy disk
	25		(B) COMPUTER: IBM PC compatible
			(C) OPERATING SYSTEM: PC-DOS/MS-DOS
			(D) SOFTWARE: PatentIn Release #1.0, Version #1.30
		(vi)	CURRENT APPLICATION DATA:
	30	(- /	(A) APPLICATION NUMBER: (To Be Assigned)
			(B) FILING DATE: 27-MAR-1998
			(C) CLASSIFICATION:
		(azá á)	PRIOR APPLICATION DATA:
	35	(\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	(A) APPLICATION NUMBER: US 08/801,720
	-		(B) FILING DATE: 14-FEB-1997
			(C) CLASSIFICATION:
		(mmd 2.)	DDTOD ADDITION DAMA
	40	(A11)	PRIOR APPLICATION DATA: (A) APPLICATION NUMBER: US 08/689,815
		•	(B) FILING DATE: 14-AUG-1996
			(C) CLASSIFICATION:
			(0, 0=13311131112311
		(viii)	ATTORNEY/AGENT INFORMATION:
	45		(A) NAME: Esmond, Robert W.
			(B) REGISTRATION NUMBER: 32,893
			(C) REFERENCE/DOCKET NUMBER: 0942.3910000
		(ix)	TELECOMMUNICATION INFORMATION:
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			(B) TELEFAX: 202-371-2540

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(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 893 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

10	(xi)	SEQUENCE	DESCRIP	TION: SE	Q ID	NO:1:	:				
10	Met Ala 1	Arg Leu	Phe Leu 5	Phe Asp	Gly	Thr A	Ala Leu	Ala	Tyr	Arg 15	Ala
15	Tyr Tyr	Ala Leu 20	Asp Arg	Ser Leu	Ser 25	Thr S	Ser Thr	Gly	Ile 30	Pro	Thr
	Asn Ala	Val Tyr 35	Gly Val	Ala Aro	Met	Leu \	Val Lys	Phe 45	Ile	Lys	Glu
20	His Ile 50	Ile Pro	Glu Lys	Asp Tyr 55	Ala	Ala V	Val Ala 60	Phe	Asp	Lys	Lys
25	Ala Ala 65	Thr Phe	Arg His 70	Lys Let	ı Leu	_	Ser Asp 75	Lys	Ala	Gln	Arg 80
23	Pro Lys	Thr Pro	Ala Leu 85	Leu Val	. Gln	Gln I 90	Leu Pro	Tyr	Ile	Lys 95	Arg
30	Leu Ile	Glu Ala 100	Leu Gly	Phe Lys	Val 105	Leu (Glu Leu	Glu	Gly 110	Tyr	Glu
	Ala Asp	Asp Ile 115	Ile Ala	Thr Let		Val A	Arg Ala	Ala 125	Arg	Phe	Leu
35	Met Arg 130	Phe Ser	Leu Ile	Thr Gly	Asp	Lys A	Asp Met 140	Leu	Gln	Leu	Val
40	Asn Glu 145	Lys Ile	Lys Val 150	Trp Arg	, Ile		Lys Gly 155	Ile	Ser	Asp	Leu 160
	Glu Leu	Tyr Asp	Ser Lys 165	Lys Val	Lys	Glu <i>A</i> 170	Arg Tyr	Gly	Val	Glu 175	Pro
45	His Gln	Ile Pro 180	Asp Leu	Leu Ala	Leu 185	Thr (Gly Asp	Asp	Ile 190	Asp	Asn
	Ile Pro	Gly Val 195	Thr Gly	Ile Gly 200		Lys T	Thr Ala	Val 205	Gln	Leu	Leu
50	Gly Lys 210	Tyr Arg	Asn Leu	Glu Tyr 215	lle	Leu (Glu His 220	Ala	Arg	Glu	Leu
55	Pro Gln 225	Arg Val	Arg Lys 230	Ala Leu	Leu		Asp Arg 235	Glu	Val	Ala	Ile 240
	Leu Ser	Lys Lys	Leu Ala 245	Thr Lev	Val	Thr A 250	Asn Ala	Pro	Val	Glu 255	Val
60	Asp Trp	Glu Glu 260	Met Lys	Tyr Arg	Gly 265	Tyr A	Asp Lys	Arg	Lys 270	Leu	Leu

		Pro	Ile	Leu 275	Lys	Glu	Leu	Glu	Phe 280	Ala	Ser	Ile	Met	Lys 285	Glu	Leu	Gln
5		Leu	Tyr 290	Glu	Glu	Ala	Glu	Pro 295	Thr	Gly	Tyr	Glu	Ile 300	Val	Lys	Asp	His
		Lys 305	Thr	Phe	Glu	Asp	Leu 310	Ile	Glu	Lys	Leu	Lys 315	Glu	Val	Pro	Ser	Phe 320
10		Ala	Leu	Asp	Leu	Glu 325	Thr	Ser	Ser	Leu	Asp 330	Pro	Phe	Asn	Cys	Glu 335	Ile
15		Val	Gly	Ile	Ser 340	Val	Ser	Phe	Lys	Pro 345	Lys	Thr	Ala	Tyr	Tyr 350	Ile	Pro
		Leu	His	His 355	Arg	Asn	Ala	His	Asn 360	Leu	Asp	Glu	Thr	Leu 365	Val	Leu	Ser
20		Lys	Leu 370	Lys	Glu	Ile	Leu	Glu 375	Asp	Pro	Ser	Ser	Lys 380	Ile	Val	Gly	Gln
		Asn 385	Leu	Lys	Tyr	Asp	Tyr 390	Lys	Val	Leu	Met	Val 395	Lys	Gly	Ile	Ser	Pro 400
25		Val	Tyr	Pro	His	Phe 405	Asp	Thr	Met	Ile	Ala 410	Ala	Tyr	Leu	Leu	Glu 415	Pro
30		Asn	Glu	Lys	Lys 420	Phe	Asn	Leu	Glu	Asp 425	Leu	Ser	Leu	Lys	Phe 430	Leu	Gly
,30		Tyr	Lys	Met 435	Thr	Ser	Tyr	Gln	Glu 440	Leu	Met	Ser	Phe	Ser 445	Ser	Pro	Leu
35		Phe	Gly 450	Phe	Ser	Phe	Ala	Asp 455	Val	Pro	Val	Asp	Lys 460	Ala	Ala	Glu	Tyr
		Ser 465	Cys	Glu	Asp	Ala	Asp 470	Ile	Thr	Tyr	Arg	Leu 475	Tyr	Lys	Ile	Leu	Ser 480
40		Met	Lys	Leu	His	Glu 485	Ala	Glu	Leu	Glu	Asn 490	Val	Phe	Tyr	Arg	Ile 495	Glu
15		Met	Pro	Leu			Val	Leu	Ala	Arg 505	Met	Glu	Phe	Asn	Trp 510	Val	Tyr
75		Val	Asp	Thr 515	Glu	Phe	Leu	Lys	Lys 520	Leu	Ser	Glu	Glu	Tyr 525	Gly	Lys	Lys
50	•	Leu	Glu 530	Glu	Leu	Ala	Glu	Lys 535	Ile	Tyr	Gln	Ile	Ala 540	Gly	Glu	Pro	Phe
		Asn 545	Ile	Asn	Ser	Pro	Lys 550	Gln	Val	Ser	Asn	Ile 555	Leu	Phe	Glu	Lys	Leu 560
55		Gly	Ile	Lys	Pro	Arg 565	Gly	Lys	Thr	Thr	Lys 570	Thr	Gly	Asp	Tyr	Ser 575	Thr
60		Arg	Ile	Glu	Val 580	Leu	Glu	Glu	Ile	Ala 585	Asn	Glu	His	Glu	Ile 590	Val	Pro
	10 15 20 25 30 35 40 45 50	10 15 20 25 30 35 40 45 50	Leu Lys 305 10 Ala Val 15 Leu 20 Asn 385 25 Val Asn 30 Tyr 35 Phe 365 40 Met 45 Val 50 Asn 545 55 Gly Arg	5 Leu Tyr 290 Lys Thr 305 10 Ala Leu Val Gly 15 Leu His 20 Asn Leu 385 Val Tyr Asn Glu 30 Tyr Lys Asn Gly 35 Phe Gly 450 Ser Cys 465 40 Met Lys 45 Val Asp 50 Asn Ile 545 Gly Ile Arg Ile	Leu Tyr Glu 290	Leu Tyr Glu Glu Lys Thr Phe Glu 305 Thr Phe Glu 305 Thr Phe Glu 10 Ala Leu Asp Leu Val Gly Ile Ser 340 Leu His His Arg 355 Arg 20 Lys Leu Lys Glu Asn Leu Lys Tyr 385 Leu Lys Tyr 385 Thr Pro His Asn Glu Lys Lys 420 Tyr Lys Met Thr 435 Thr 35 Phe Gly Phe Ser 450 Ser Cys Glu Asp 465 Asp 465 Asp 465 Asp 465 Asp 500 Met Lys Leu His 450 Asp 500 Asp 11e Glu Cu Asp 500 Arg Ile Glu Val 580	Leu Tyr Glu Glu Ala	Leu Tyr Glu Glu Ala Glu Lys Thr Phe Glu Asp Leu 305 Thr Phe Glu Asp Leu 305 Thr Phe Glu Asp Leu 310 Ala Leu Asp Leu Glu Thr 325 Thr Val Gly Ile Ser Val Ser 340 Lys Leu His His Arg Asn Ala 355 Arg Asn Ala 360 Lys Leu Lys Glu Ile Leu Asn Leu Lys Tyr Asp Tyr 385 Val Tyr Pro His Phe Asn 400 Asn Glu Lys Lys Phe Asn 450 Phe Gly Phe Ser Phe Ala 450 Ser Cys Glu Asp Ala Asp 465 Ash Pro Leu His Glu Ala 485 Val Asp Thr Glu Phe Leu 50 Asn Ile Asn Ser Pro Lys 545 Gly Ile Lys Pro Arg Gly 565 Arg Ile Glu Val Leu Glu	10	1	275 280 280 290 295 Thr Gly 290 295 Thr Gly 295 Thr Thr 295 Thr	275 280 295 295 297	Secondary Secondary Secondary Se	275	285	Leu Tyr Glu Glu Ala Glu Pro Thr Glu Tyr Glu Glu Lys Lys 300 Sano S	Leu Tyr Glu Glu Ala Glu Pro Thr Gly Tyr Glu Ile Val Lys Asp 295 The Gly Tyr Glu Ile Val Lys Asp 295 The Gly Tyr Glu Ile Val Lys Asp 295 The Gly Tyr Glu Ile Val Lys Asp 295 The Gly Tyr Glu Ile Val Lys Asp 205 The Sac 335 The Sac 330 Pro Phe Ash Cys Glu 335 Val Gly Ile Sac 325 The Sac Ileu Asp Pro Phe Ash Cys Glu 335 Val Gly Ile Sac 325 The Sac Ileu Asp Pro Phe Ash Cys Glu 335 The 345 The 346 The 350 The 345 The

	Leu	Ile	Leu 595	Glu	Phe	Arg	Lys	Ile 600	Leu	Lys	Leu	Lys	Ser 605	Thr	Tyr	Ile
5	Asp	Thr 610	Leu	Pro	Lys	Leu	Val 615	Asn	Pro	Lys	Thr	Gly 620	Arg	Phe	His	Ala
	Ser 625	Phe	His	Gln	Thr	Gly 630	Thr	Ala	Thr	Gly	Arg 635	Leu	Ser	Ser	Ser	Asp 640
10	Pro	Asn	Leu	Gln	Asn 645	Leu	Pro	Thr	Lys	Ser 650	Glu	Glu	Gly	Lys	Glu 655	Ile
15	Arg	Lys	Ala	Ile 660	Val	Pro	Gln	Asp	Pro 665	Asp	Trp	Trp	Ile	Val 670	Ser	Ala
	Asp	Tyr	Ser 675	Gln	Ile	Glu	Leu	Arg 680	Ile	Leu	Ala	His	Leu 685	Ser	Gly	Asp
20	Glu	Asn 690	Leu	Val	Lys	Ala	Phe 695	Glu	Glu	Gly	Ile	Asp 700	Val	His	Thr	Leu
	Thr 705	Ala	Ser	Arg	Ile	Tyr 710	Asn	Val	Lys	Pro	Glu 715	Glu	Val	Asn	Glu	Glu 720
25	Met	Arg	Arg	Val	Gly 725	Lys	Met	Val	Asn	Phe 730	Ser	Ile	Ile	Tyr	Gly 735	Val
30	Thr	Pro	Tyr	Gly 740	Leu	Ser	Val	Arg	Leu 745	Gly	Ile	Pro	Val	Lys 750	Glu	Ala
	Glu	Lys	Met 755	Ile	Ile	Ser	Tyr	Phe 760	Thr	Leu	Tyr	Pro	Lys 765	Val	Arg	Ser
35	Tyr	Ile 770	Gln	Gln	Val	Val	Ala 775	Glu	Ala	Lys	Glu	Lys 780	Gly	Tyr	Val	Arg
	Thr 785	Leu	Phe	Gly	Arg	Lys 790	Arg	Asp	Ile	Pro	Gln 795	Leu	Met	Ala	Arg	Asp 800
40	Lys	Asn	Thr	Gln	Ser 805	Glu	Gly	Glu	Arg	Ile 810	Ala	Ile	Asn	Thr	Pro 815	Ile
45	Gln	Gly		Ala 820		Asp	Ile	Ile	Lys 825	Leu	Ala	Met		Asp 830		Asp
	Glu	Glu	Leu 835	Arg	Lys	Arg	Asn	Met 840	Lys	Ser	Arg	Met	Ile 845	Ile	Gln	Val
50	His	Asp 850	Glu	Leu	Val	Phe	Glu 855	Val	Pro	Asp	Glu	Glu 860	Lys	Glu	Glu	Leu
	Val 865	Asp	Leu	Val	Lys	Asn 870	Lys	Met	Thr	Asn	Val 875	Val	Lys	Leu	Ser	Val 880
55	Pro	Leu	Glu	Val	Asp 885	Ile	Ser	Ile	Gly	Lys 890	Ser	Trp	Ser			

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(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 893 amino acids

- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

10	(xi)	SEQ	UENCI	E DE	SCRI	PTIO	1: S1	EQ II	ои о	:2:						
	Met 1	Ala	Arg	Leu	Phe 5	Leu	Phe	Asp	Gly	Thr 10	Ala	Leu	Ala	Tyr	Arg 15	Ala
15	Tyr	Tyr	Ala	Leu 20	Asp	Arg	Ser	Leu	Ser 25	Thr	Ser	Thr	Gly	Ile 30	Pro	Thr
20	Asn	Ala	Val 35	Tyr	Gly	Val	Ala	Arg 40	Met	Leu	Val	Lys	Phe 45	Ile	Lys	Glu
	His	Ile 50	Ile	Pro	Glu	Lys	Asp 55	Tyr	Ala	Ala	Val	Ala 60	Phe	Asp	Lys	Lys
25	Ala 65	Ala	Thr	Phe	Arg	His 70	Lys	Leu	Leu	Val	Ser 75	Asp	Lys	Ala	Gln	Arg 80
	Pro	Lys	Thr	Pro	Ala 85	Leu	Leu	Val	Gln	Gln 90	Leu	Pro	Tyr	Ile	Lys 95	Arg
30	Leu	Ile	Glu	Ala 100	Leu	Gly	Phe	Lys	Val 105	Leu	Glu	Leu	Glu	Gly 110	Tyr	Glu
35	Ala	Asp	Asp 115	Ile	Ile	Ala	Thr	Leu 120	Ala	Val	Arg	Ala	Ala 125	Arg	Phe	Leu
	Met	Arg 130	Phe	Ser	Leu	Ile	Thr 135	Gly	Asp	Lys	Asp	Met 140	Leu	Gln	Leu	Val
40	Asn 145	Glu	Lys	Ile	Lys	Val 150	Trp	Arg	Ile	Val	Lys 155	Gly	Ile	Ser	Asp	Leu 160
	Glu	Leu	Tyr	Asp	Ser 165	Lys	Lys	Val	Lys	Glu 170	Arg	Tyr	Gly	Val	Glu 175	Pro
45	His	Gln	Ile	Pro 180	Asp	Leu	Leu	Ala	Leu 185	Thr	Gly	Asp	Asp	Ile 190	Asp	Asn
50	Ile	Pro	Gly 195	Val	Thr	Gly	Ile	Gly 200	Glu	Lys	Thr	Ala	Val 205	Gln	Leu	Leu
	Gly	Lys 210	Tyr	Arg	Asn	Leu	Glu 215	Tyr	Ile	Leu	Glu	His 220	Ala	Arg	Glu	Leu
55	Pro 225	Gln	Arg	Val	Arg	Lys 230	Ala	Leu	Leu	Arg	Asp 235	Arg	Glu	Val	Ala	Ile 240
	Leu	Ser	Lys	Lys	Leu 245	Ala	Thr	Leu	Val	Thr 250	Asn	Ala	Pro	Val	Glu 255	Val
60	Asp	Trp	Glu	Glu	Met	Lys	Tyr	Arg	Gly	Tyr	Asp	Lys	Arg	Lys	Leu	Leu

					260					265					270		
	5	Pro	Ile	Leu 275	Lys	Glu	Leu	Glu	Phe 280	Ala	Ser	Ile	Met	Lys 285	Glu	Leu	Gln
	3	Leu	Tyr 290	Glu	Glu	Ala	Glu	Pro 295	Thr	Gly	Tyr	Glu	Ile 300	Val	Lys	Asp	His
	10	Lys 305	Thr	Phe	Glu	Asp	Leu 310	Ile	Glu	Lys	Leu	Lys 315	Glu	Val	Pro	Ser	Phe 320
		Ala	Leu	Asp	Leu	Glu 325	Thr	Ser	Ser	Leu	Asp 330	Pro	Phe	Asn	Cys	Glu 335	Ile
	15	Val	Gly	Ile	Ser 340	Val	Ser	Phe	Lys	Pro 345	Lys	Thr	Ala	Tyr	Tyr 350	Ile	Pro
PRESIDENT OF A STATE O	20	Leu	His	His 355	Arg	Asn	Ala	His	Asn 360	Leu	Asp	Glu	Thr	Leu 365	Val	Leu	Ser
A CONTROLLED AND AND AND AND AND AND AND AND AND AN	20	Lys	Leu 370	Lys	Glu	Ile	Leu	Glu 375	Asp	Pro	Ser	Ser	Lys 380	Ile	Val	Gly	Gln
The formation of the control of the	25	Asn 385	Leu	Lys	Tyr	Asp	Tyr 390	Lys	Val	Leu	Met	Val 395	Lys	Gly	Ile	Ser	Pro 400
		Val	Tyr	Pro	His	Phe 405	Asp	Thr	Met	Ile	Ala 410	Ala	Tyr	Leu	Leu	Glu 415	Pro
	30	Asn	Glu	Lys	Lys 420	Phe	Asn	Leu	Glu	Asp 425	Leu	Ser	Leu	Lys	Phe 430	Leu	Gly
	35	Tyr	Lys	Met 435	Thr	Ser	Tyr	Gln	Glu 440	Leu	Met	Ser	Phe	Ser 445	Ser	Pro	Leu
Particular of the second of th		Phe	Gly 450	Phe	Ser	Phe	Ala	Asp 455	Val	Pro	Val	Asp	Lys 460	Ala	Ala	Glu	Tyr
	40	Ser 465	Cys	Glu	Asp	Ala	Asp 470	Ile	Thr	Tyr	Arg	Leu 475	Tyr	Lys	Ile	Leu	Ser 480
		Met	Lys	Leu	His	Glu 485	Ala	Glu	Leu	Glu	Asn 490	Val	Phe	Tyr	Arg	Ile 495	Glu
	45	Met	Pro	Leu	Val 500	Asn	Val	Leu	Ala	Arg 505	Met	Glu	Phe	Asn	Trp 510	Val	Tyr
	50	Val	Asp	Thr 515	Glu	Phe	Leu	Lys	Lys 520	Leu	Ser	Glu	Glu	Tyr 525	Gly	Lys	Lys
	50	Leu	Glu 530	Glu	Leu	Ala	Glu	Lys 535	Ile	Tyr	Gln	Ile	Ala 540	Gly	Glu	Pro	Phe
	55	Asn 545	Ile	Asn	Ser	Pro	Lys 550	Gln	Val	Ser	Asn	Ile 555	Leu	Phe	Glu	Lys	Leu 560
		Gly	Ile	Lys	Pro		Gly	Lys	Thr	Thr		Thr	Gly	Asp	Tyr		Thr
	60					565					570					575	

	Arg	Ile	Glu	Val 580	Leu	Glu	Glu	Ile	Ala 585	Asn	Glu	His	Glu	Ile 590	Val	Pro
5	Leu	Ile	Leu 595	Glu	Phe	Arg	Lys	Ile 600	Leu	Lys	Leu	Lys	Ser 605	Thr	Tyr	Ile
10	Asp	Thr 610	Leu	Pro	Lys	Leu	Val 615	Asn	Pro	Lys	Thr	Gly 620	Arg	Phe	His	Ala
10	Ser 625	Phe	His	Gln	Thr	Gly 630	Thr	Ala	Thr	Gly	Arg 635	Leu	Ser	Ser	Ser	Asp 640
15	Pro	Asn	Leu	Gln	Asn 645	Leu	Pro	Thr	Lys	Ser 650	Glu	Glu	Gly	Lys	Glu 655	Ile
	Arg	Lys	Ala	Ile 660	Val	Pro	Gln	Asp	Pro 665	Asp	Trp	Trp	Ile	Val 670	Ser	Ala
20	Asp	Tyr	Ser 675	Gln	Ile	Glu	Leu	Arg 680	Ile	Leu	Ala	His	Leu 685	Ser	Gly	Asp
25	Glu	Asn 690	Leu	Val	Lys	Ala	Phe 695	Glu	Glu	Gly	Ile	Asp 700	Val	His	Thr	Leu
	Thr 705	Ala	Ser	Arg	Ile	Tyr 710	Asn	Val	Lys	Pro	Glu 715	Glu	Val	Asn	Glu	Glu 720
30	Met	Arg	Arg	Val	Gly 725	Lys	Met	Val	Asn	Tyr 730	Ser	Ile	Ile	Tyr	Gly 735	Val
	Thr	Pro	Tyr	Gly 740	Leu	Ser	Val	Arg	Leu 745	Gly	Ile	Pro	Val	Lys 750	Glu	Ala
35	Glu	Lys	Met 755	Ile	Ile	Ser	Tyr	Phe 760	Thr	Leu	Tyr	Pro	Lys 765	Val	Arg	Ser
40	Tyr	Ile 770	Gln	Gln	Val	Val	Ala 775	Glu	Ala	Lys	Glu	Lys 780	Gly	Tyr	Val	Arg
	Thr 785	Leu	Phe	Gly	Arg	Lys 790	Arg	Asp	Ile	Pro	Gln 795	Leu	Met	Ala	Arg	Asp 800
45	Lys	Asn	Thr	Gln	Ser 805	Glu	Gly	Glu	Arg	Ile 810	Ala	Ile	Asn	Thr	Pro 815	Ile
	Gln	Gly	Thr	Ala 820	Ala	Asp	Ile	Ile	Lys 825	Leu	Ala	Met	Ile	Asp 830	Ile	Asp
50	Glu	Glu	Leu 835	Arg	Lys	Arg	Asn	Met 840	Lys	Ser	Arg	Met	Ile 845	Ile	Gln	Val
55	His	Asp 850	Glu	Leu	Val	Phe	Glu 855	Val	Pro	Asp	Glu	Glu 860	Lys	Glu	Glu	Leu
	Val 865	Asp	Leu	Val	Lys	Asn 870	Lys	Met	Thr	Asn	Val 875	Val	Lys	Leu	Ser	Val 880
60	Pro	Leu	Glu	Val	Asp 885	Ile	Ser	Ile	Gly	Lys 890	Ser	Trp	Ser			